

SEQUENCE LISTINGCDRs For FR1-H7 Amino Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:1	DYYMH
CDR2 SEQ ID NO:2	LVDPEDGETIYAEKFQG
CDR3 SEQ ID NO:3	DDYMDV

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:4	RASQSVSGSALA
CDR2 SEQ ID NO:5	DASSRAT
CDR3 SEQ ID NO:6	QQYGSSPLT

Variable Region Of FR1-H7 Heavy Chain

Amino Acid Sequence

SEQ ID NO:7

MAEVQLVQSGAEVKPGASVKVSCKVSGYTFTDYYMHWVQQAPGKGLEWMGLVDPEDGET
IYAEKFQGRVTITADTSTDTAYMELSSLRSEDTAVYYCARDDYMDVWGKGTLTVSSAST
KGPVariable Region Of FR1-H7 Light Chain

Amino Acid Sequence

SEQ ID NO:8

LETTLTQSPDTLSLSPGEGATLSCRASQSVSGSALAWYQQKPGQAPRLLIYDASSRATGV
PDRFSGSGSGADFSLTISRLEPEDFAVYSCQQYGSSPLTFGP GTKV DVKRTVAAPS VFIF
PPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDCDRs For FR1-A1 Amino Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:9	GYYMH
CDR2 SEQ ID NO:10	RIIPILGIANYAQKFQG
CDR3 SEQ ID NO:11	GGDLGGMDV

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:12	RSSQSLRHSNGNYLD
CDR2 SEQ ID NO:13	LASN RAS
CDR3 SEQ ID NO:14	MQALQIPPT

Variable Region Of FR1-A1 Heavy Chain

Amino Acid Sequences

SEQ ID NO:15.

MAQVQLVQSGAEVKPGSSVKVSCKASGQTFTGYYMHWVRQAPGQGLEWMGRII PILGIA
NYAQKFQGRVTITADKS TSTAYMELSSLRSEDTAVYYCARGGDLGGMDVWGQG

Variable Region of FR1-A1 Light Chain

Amino Acid Sequences

SEQ ID NO:16

LEIVLTQSPPLSPVTPGEPASISCRSSQSLRHSNGNYLDWYLQKPGQSPQLLIYLASN
ASGVPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQALQIPIPPTFGPGTKVDIKRTVAA

CDRs For FR1-4H Amino Acid Sequences

Variable Heavy Chain

CDR1 SEQ ID NO:17	SYYWS
CDR2 SEQ ID NO:18	YIYYSGSTNYPNPSLKS
CDR3 SEQ ID NO:19	EYYYDSSGYYFYAFDI

Variable Light Chain]

CDR1 SEQ ID NO:20	SGSSSNIGSNYVY
CDR2 SEQ ID NO:21	RNNQRPS
CDR3 SEQ ID NO:22	AAWDDSLSGWV

Variable Region Heavy Chain FR1-4H

Amino Acid Sequences

SEQ ID NO:23

QVQLVEFGPGLVKPSETLSLTCTVSGGSISYYWSWIHQPPGKGLEWIGY	50
IYYSGSTNYPNPSLKSRAVISVDTSKNQFSKLSSVTAADTAVYYCAREYY	100
YDSSGYYFYAFDIWGQGTTVTVSS	124

Variable Region Light Chain

Amino Acid Sequence

SEQ ID NO:24

LPVLTQPPSASGTPGQRVSISCSGSSNIGSNYVYWYQQLPGTAPKLLIF	50
RNNQRPSGVPDFSGSKSGTSASLAISGLRSEDEADYYCAAWDDSLSGWV	100
FGGGTKLTVLG	111

CDRs For FR1-H7 Nucleic Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:25	GACTACTACATGCAC
CDR2 SEQ ID NO:26	CTTGTTGATCCTGAAGATGGTGAACAAATCTACGCAGA
GAAGTTCCAGGGC	
CDR3 SEQ ID NO:27	GATGACTACATGGACGTC

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:28	AGGGCCAGTCAGAGTGTAGCGGCAGTGCCTGGCC
CDR2 SEQ ID NO:29	GATGCATCCAGTAGGGCCACT
CDR3 SEQ ID NO:30	CAGCAATATGGTAGCTCACCTCTCACT

Variable Region of FR1-H7 Heavy Chain DNA Sequence**SEQ ID NO:31**

ATGGCCGAGGTGCAGCTGGTGCAGTCTGGGCTGAGGTGAAGAAGCCTGGGCCTCAGTG
AAGGTTCTGCAAGGTTCTGGATACACCTCACCGACTACTACATGCACTGGTGCAA
CAGGCCCTGGAAAAGGGCTTGAGTGGATGGACTTGTGATCCTGAAGATGGTAAACA
ATCTACGCAGAGAAGTTCCAGGGCAGAGTCACCATAACCGCGGACACGTCTACAGACACA
GCCTACATGGAGCTGAGCAGCCTGAGATCTGAGGACACGGCCGTATTACTGTGCGAGA
GATGACTACATGGACGTCTGGGCAAAGGCACCCTGGTACCGTCTCAAGCGCCTCCACC
AAGGGCCA

Variable Region of FR1-H7 Light Chain DNA Sequence

SEQ ID NO:32

CTTGAAACGACACTCACGCAGTCTCCAGACACCCCTGTCTTGTCAGGAGAAGGAGCC
ACCCCTCCTGTAGGGCCAGTCAGAGTGTAGCGGCAGTGCCTGGCTGGTACCGAG
AAACCTGGCCAGGCTCCCAGACTCCTCATCTATGATGCATCCAGTAGGGCCACTGGCGTC
CCAGACAGGTTCAGTGGCAGTGGTCTGGGCAGACTTCAGTCTCACCATCAGCAGACTG
GAGCCTGAAGATTTGCAGTGTATTCTGTCAAGCAATATGGTAGCTCACCTCTCACTTC
GGCCCTGGGACCAAAGTGGATGTCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC
CCGCCATCTGATGAGCAGTTGAAATCTGGAACCTGCCTCTGTTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATT

CDRs For FR1-A1 Nucleic Acid Sequences

VH (human heavy chain subclass I)

CDR1 **SEQ ID NO:33** GGCTACTATATGCAC

CDR2 **SEQ ID NO:34** AGGATCATCCCTATCCTGGTATAGCAAAC

TACGCACAGAACAGTTCCAGGGC

CDR3 **SEQ ID NO:35** GGAGGGAGATCTGGCGGTATGGACGTC

VL (human kappa light chain subgroup III)

CDR1 **SEQ ID NO:36** AGGTCTAGTCAGAGCCTCCGGCATAGTAAT

GGATACAACATTGGAT

CDR2 **SEQ ID NO:37** TTGGCTTCTAACATGGGCCTCC

CDR3 **SEQ ID NO:38** ATGCAAGCTCTACAAATTCCCTCCGACT

Variable Region of FR1-A1 Heavy Chain

DNA Sequence

SEQ ID NO:39

ATGGCCCAGGTCCAGCTGGTGCAGTCTGGGCTGAGGTGAAGAAGCCTGGTCCTCGGTG
AAGGTCTCCTGCAAGGCTTCTGGATCGACCTCACCGCTACTATATGCACTGGTGCGA
CAGGCCCTGGACAAGGGCTTGAGTGGATGGAAAGGATCATCCCTATCCTGGTATAGCA
AACTACGCACAGAACAGTTCCAGGGCAGAGTCACGATTACCGCGGACAAATCCACGAGCACA
GCCTACATGGAGCTGAGCAGCCTGAGATCTGAGGACACGGCCGTGTACTACTGTGCGAGA
GGAGGAGATCTGGCGGTATGGACGTCTGGGGCCAAGGGA

Variable Region of FR1-A1 Light Chain

DNA Sequences

SEQ ID NO:40

CTTGAAATTGTGCTGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCC
 TCCATCTCCTGCAGGTCTAGTCAGAGCCTCCGGCATAGTAATGGATAACAACATTGGAT
 TGGTACCTGCAGAACGCCAGGGCAGTCTCACAGCTCCTGATCTATTGGCTCTAATCGG
 GCCTCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTACTGAAA
 ATCAGCAGAGTGGAGGCTGAGGATGTTGGGTTATTACTGCATGCAAGCTCTACAAATT
 CCTCCGACTTCGGCCCTGGGACCAAAGTGGATATCAAACGAACGTGGCTGCA

CDRs For FR1-4H Nucleic Acid Sequences

Variable Heavy Chain

CDR1 **SEQ ID NO:41** AGTTACTACTGGAGC
 CDR2 **SEQ ID NO:42**
 TATATCTATTACAGTGGGAGCACCAACTACAACCCCTCCCTCAAGAGT
 CDR3 **SEQ ID NO:43**
 GAGTATTACTATGATAGTAGTGGTTATTACTTTATGCTTTGATATC

Variable Light Chain]

CDR1 **SEQ ID NO:44** TCTGGAAGCAGCTCCAACATCGGAAGTAATTATGTATAC
 CDR2 **SEQ ID NO:45** AGGAATAATCAGCGGCCCTCA
 CDR3 **SEQ ID NO:46** GCAGCATGGGATGACAGCCTGAGTGGTTGGTG

Variable Region Heavy Chain FR1-4H

DNA Sequences

SEQ ID NO:47

CAGGTGCAGCTGGTGGAGTTGGCCCAGGA	50
CTCTGGCTCCCTCACCTGCACTGTCTGGTGGCTCCATCAGTAGTTACTACT	100
GGAGCTGGATCCGGCAGCCCCCAGGAAAGGGACTGGAGTGGATTGGGTAT	150
ATCTATTACAGTGGGAGCACCAACTACAACCCCTCCCTCAAGAGTCGAGT	200
CGCCATATCAGTAGACACGTCCAAGAACCAAGTTCTCCCTGAAGCTGAGCT	250
CTGTGACCGCCGGACACGGCCGTGTATTACTGTGCGAGAGAGTATTAC	300
TATGATAGTAGTGGTTATTACTTTATGCTTTGATATCTGGGGCCAAGG	350
GACCACGGTCACCGTCTCAAGC	372

Variable Region Light Chain

DNA Sequence

SEQ ID NO:48

CTGCCTGTGCTGACTCAGCCCCCTCAGCGTCTGGGACCCCCGGGCAGAG	50
GGTCTCCATCTCTTCTGGAAAGCAGCTCCAACATCGGAAGTAATTATG	100
TATACTGGTACCAAGCAGCTCCAGGAACGGCCCCAAACTCCTCATCTT	150
AGGAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCTCAA	200
GTCTGGCACTTCAGCCTCCCTGGCCATCAGTGGCTCCGGTCCGAGGATG	250
AGGCTGATTATTACTGTGCAGCATGGGATGACAGCCTGAGTGGTTGGGTG	300
TTCGGCGGAGGGACCAAGCTGACCGTCCTAGGT	333